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ABSTRACT

Making the case that breastfeeding provides essential and long-lasting benefits for children and should be one of California's first investments in the healthy development of every child, this report assists state and county commissions of Proposition 10 (Families and Children First Act) in the development of effective strategies and integrated systems to assure breastfeeding success for California families. Following an introduction that looks at current trends and determinants of breastfeeding, the report examines the benefits of breastfeeding, in areas of health, development, and economics. This section also takes a systematic approach to understanding the breastfeeding decision-making process, and barriers to successful breastfeeding. The report then considers ways in which existing support programs could be improved to play a more effective role in such a system, looking at media strategic communication, the health care sector, community resources such as child care services, employers, and home visitation programs. For each of the areas, the report includes specific recommendations for the Proposition 10 commissions. Best practices and model programs are also highlighted. The report next urges Proposition 10 commissions to provide leadership in coordinating and integrating breastfeeding support systems and programs and promoting them. Integrating and coordinating funding is then considered, with both short- and long-term recommendations. The report then presents a critical plan for building an integrated support system for breastfeeding, covering strategic planning, leadership, partnerships and collaboration, training and technical assistance, funding, and evaluation. The report concludes with recommendations for developing an evaluative "breastfeeding report card." The report's five appendices include a schematic of the breastfeeding environment, 10 steps to successful breastfeeding, and a list of breastfeeding information resources. (Contains 57 references.) (HTH)

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Building Community Systems for Young Children

Building Community Systems for Young Children is a series of reports designed to support the implementation of Proposition 10: The California Children and Families Act. Each installment is written by a team of experts and provides comprehensive and authoritative information on critical issues concerning young children and families in California.

September 2001

Breastfeeding: One of California's First Investments in Young Children

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Breastfeeding:
One of California's First Investments in Young Children

I. Introduction

Breastfeeding should be one of California's first investments in the healthy development of every child. As this report will show, breastfeeding provides essential and long-lasting benefits for the child. Breastfed children experience less infectious disease and fewer chronic illnesses, and breastfeeding contributes to optimal child development. There is much that California and its communities can and should do to encourage and support breastfeeding. With the passage of Proposition 10, California communities now have an opportunity to support this important health-promoting behavior, and address the social, economic, and workplace barriers that challenge the ability of many families to breastfeed. Through appropriate strategic planning, coordinating and integrating existing activities, each California county can build community systems that support and sustain successful breastfeeding and lead to optimal outcomes for child health and development.

We know that the majority of California women choose to breastfeed their newborns because 80 percent are breastfeeding when they leave the hospital with their babies (Florez C, Taylor D, Chavez G 2000). But this number alone is misleading and tells only a fraction of the story. By the time infants reach 6 months of age, the number of families breastfeeding has dropped by half, with this decline starting as early as the first or second month (Ross Products Division 1998; Slusser W, Lange L 2001; California Department of Health Services 1996). Furthermore, fewer than half of California families are breastfeeding exclusively when they leave the hospital (Florez C, Taylor D, Chavez G 2000). This means that less than half of California's breastfed babies are getting the full benefits that breast milk provides. These key findings are important indicators of a family's ability to successfully access very basic kinds of support services for the development of their young child. Clearly, these figures show that California is failing to adequately encourage and support families who choose to breastfeed.

Why do so many families start to breastfeed, yet so few continue? At first glance, breastfeeding seems to be a simple and natural thing for mothers to do for their children. But breastfeeding is actually a much more complicated process than one might think. Given the complexity of our modern world, and the competing demands on any family with a newborn infant, it would be a mistake to think that breastfeeding is solely a private activity between mother and child. For breastfeeding to be initiated and to continue over a significant period of time, women who choose to breastfeed need support from a variety of sources in order to overcome some frequently encountered barriers. This support includes clinical and counseling services from health care providers and hospitals, basic education about the importance and benefits of breastfeeding for parents and communities, and community-based support services, including breast pumps that have

become the essential companion of the breastfeeding working mother. For breastfeeding success[1] to become an important outcome for Proposition 10, a comprehensive strategy is necessary – one that provides a systematic, integrated and communitywide approach to breastfeeding that integrates a range of services, relationships, skill building, funding and other activities that are vital to success for breastfeeding families and communities.

The goal of this report is to assist state and county Children and Families Commissions in the development of effective strategies and integrated systems to assure breastfeeding success for families throughout California. This report will propose a strategy for California by which breastfeeding goals for families and communities can be realized through comprehensive and strategic community planning; through building new linkages between existing programs, providers and sectors; and through facilitating other system-building efforts. In conjunction with the many other strategies recommended in this series, a focus on breastfeeding will enable Proposition 10 commissions to fulfill their missions for California's youngest citizens. Given the importance of breastfeeding in the healthy development of young children and the potential for creating communitywide programs to support successful breastfeeding, we believe the approach that we propose will also serve as a model for supporting other communitywide efforts.

Current Trends and Determinants

"Progress" has worked against breastfeeding. Before the twentieth century, breastfeeding was the nearly universal source of infant nutrition. In the 1930s, concurrent with the rise in popularity of maternity hospitals in the U.S., was the rise in popularity of artificial baby milk, or "formula." Both were viewed as the new scientific method of maternal and infant health care. As a result, breastfeeding began a decline lasting four decades; by the early 1970s, only 25 percent of U.S. mothers initiated breastfeeding, an all-time low, with only 5 percent still breastfeeding at 6 months. This decline produced three important barriers to breastfeeding that persist today. First, breastfeeding was no longer recognized as the normal, natural and obvious choice for feeding babies. Second, lactation management was not a priority for the health care sector, and fewer physicians and nurses were trained to properly support breastfeeding. And third, women were left with few role models in the family or the community to support or teach breastfeeding (California Department of Health Services 1996).

Beginning in the late 1960s and early 1970s, as women turned toward a less medically intrusive and more natural childbirth and maternity experience, breastfeeding duration rates began to increase. Yet in spite of the upward trend we see today, the figures still do not meet the public health goals for the nation set by Healthy People 2010: 75 percent initiation rate; 50 percent duration at 6 months; and 25 percent breastfeeding at one year (Healthy People 2010). Nor do they meet the American Academy of Pediatrics recommendations that infants be exclusively breastfed for about the first 6 months of life and continue, with the addition of appropriate complementary foods, to be breastfed

[1] A measure of a woman's ability to initiate breastfeeding and continue over a period of time. The American Academy of Pediatrics recommends that all mothers breastfeed exclusively for the first 6 months and then provide their children with a combination of breast milk, baby food and/or table food until the child is at least 1 year old. The Healthy People 2010 goals are somewhat more modest: 75 percent of mothers should initiate breastfeeding, with 50 percent still breastfeeding at 6 months and 25 percent still breastfeeding at 12 months. Therefore, breastfeeding success can be defined as a woman achieving her own personal breastfeeding goals while being encouraged to meet these more ideal goals for breastfeeding.

through the first year of life (American Academy of Pediatrics 1997). Although breastfeeding reached an all-time recorded U.S. high of 64.3 percent in 1998, racial and ethnic disparities are evident: under half of African-American women (44.9 percent) are starting to breastfeed compared to white (67.9 percent) and Hispanic (66.2 percent) women. And by the time babies are 6 months old, breastfeeding has dropped to 30.6 percent for white mothers, 28.2 percent for Hispanic mothers and 18.5 percent for black mothers (Ross Products Division 1998).

California

Even though California mothers start to breastfeed in greater numbers than U.S. mothers as a whole (80 percent vs. 64.3 percent), breastfeeding declines just as sharply by 6 months (38.4 percent vs. 28.6 percent) (Ross Products Division 1998; Florez, C, Taylor D, Chavez G 2000). Moreover, initiation rates also vary across California because of the enormous racial, ethnic, geographic and cultural diversity. While white (80 percent), Hispanic and Asian women (both 74 percent) in California are most likely to initiate breastfeeding, lower breastfeeding initiation rates are found among Native American (66 percent), and African-American (56 percent), and Southeast Asian women (38 percent) (California Department of Health Services 1996). In addition, California has regional differences in breastfeeding rates, ranging from the lowest initiation rates in Kings and Yuba County (70 percent) to a high of 100 percent in Alpine County. The lowest initiation rates are traditionally found in the Central Valley, Los Angeles and southeastern counties, areas that are more densely populated and have high numbers of nonwhites compared to the coastal and mountain regions (California Department of Health Services 1996; Florez C, Taylor D, Chavez G 2000). Furthermore, Hispanic mothers have a relatively high rate of supplementing breastfeeding with formula, while exclusive breastfeeding is greater among white, Native American, and Asian mothers. For many infants in California, breastfeeding is already being supplemented with formula at hospital discharge at over twice the rate reported for all U.S.-born infants (42 percent versus 19 percent) (California Department of Health Services 1996).

The reasons women choose to breastfeed are complex and varied, and may help explain variations in breastfeeding initiation rates across racial and ethnic groups. For example, social support is influential for every group and age, but support may come from a variety of sources. African-American women, for example, are more likely to be positively influenced to breastfeed by close friends (Baranowski et al. 1983). Partners and maternal grandmothers are more likely to affect the breastfeeding decisions of white and Hispanic women (Baranowski et al. 1983; Bryant CA 1982; Freed GL, Kennard Fraley J, Schanler RJ 1992). The sociocultural environment also influences breastfeeding. Women who live in the western part of the United States, including California, regardless of race or ethnicity, are more likely to breastfeed than women living in other parts of the country (Ryan AS 1997). However, acculturation into American society also plays a role. Newly arrived immigrant Mexican women have been found to be more likely to initiate and continue to breastfeed than more acculturated immigrants (Rassin et al. 1994). Perceptions of convenience, benefits to the infant, and personal comfort level—as well as the balance among these factors—can also vary according to race and ethnicity. Baranowski and colleagues (1986) found that, for African-American women, the balance between the benefits to the infant and the inconvenience of breastfeeding to themselves may be important, while for Caucasian mothers the benefit to the infant is seen as the most important factor in deciding to breastfeed. Hispanic mothers appeared to be influenced most by the convenience factor; some described breastfeeding as inconvenient and "annoying."

Nationwide, teen mothers have lower rates of breastfeeding initiation (50.5 percent) than do adult women (Ross Products Division 1998). Rates among California's teens and older women vary by ethnicity: Hispanic, White and Native American teens are more likely to breastfeed (70 and 68 percent, respectively) than other teens, just as older women of these same ethnicities are more likely to breastfeed (74, 80 and 66 percent, respectively) than other women (California Department of Health Services 1996). For adolescent white and Mexican-American mothers, the perceived benefits of breast milk are the strongest predictor of deciding to breastfeed. Other influential factors for Mexican-American teen mothers include the preference of their partner or mother. For white teens, the influence of the health care provider and having breastfeeding role models are important. For African-American teens, however, living with the father of the child is the strongest predictor of breastfeeding, more influential than encouragement from providers, peers, mother, or non-cohabiting partners. The timing of the decision is also significant for African-American teens. Those who made their decision to breastfeed later in their pregnancies were more likely to breastfeed than who decided early in pregnancy (Weissman CM, DuBois JC, Berenson AB 1998).

Table 1. Comparison of breastfeeding initiation rates for California teens and adult women (%)*

Race/Ethnicity	Teens	Adult women
White	68	80
Asian	65	74
Hispanic	70	74
Native American	68	66
African-American	48	56
Southeast Asian	30	38

*California Department of Health Services 1996

II. Benefits of Breastfeeding

Why breastfeed? Breast milk provides complete nutrition for the infant, sustaining optimal growth and hydration in the first six months of life. Breastfeeding yields many benefits for children, their families, and society. Below is a listing of some of the benefits conferred by breastfeeding. [For a critical review of the literature on the advantages of breastfeeding, see Heinig and Dewey (1996; 1997), Bronner (1999), and Schanler (2001).]

Benefits of Breastfeeding to Children, Mothers, Families, Communities, and Society in the U.S.

Health and Developmental Benefits

For Infants

- A reduction of infectious disease, in particular: diarrhea, otitis media, lower respiratory infections, bacteremia, meningitis, necrotizing enterocolitism, botulism, and urinary tract infections
- Provision of complete nutrition sustaining optimal growth and hydration in the first 6 months of life
- Provides an average of 30 percent of calories needed between ages 1 and 2 years
- Developmental and psychosocial benefits: associated with improved IQ; reduced risk for retinopathy of prematurity, improved performance on developmental assessments
- Associated with reduced risk for chronic disease, in particular: some food allergies, type-1 insulin-dependent diabetes; Crohn's disease, lymphoma, eczema, asthma, obesity
- Reduced risk of sudden infant death syndrome (SIDS)
- Reduced risk of bottle tooth decay

For Mothers

- Reduced risk for chronic disease, in particular: premenopausal breast cancer, ovarian cancer, hip fractures in the post-menopausal period; improved nutrition through child spacing
- Improved recovery from childbirth; reduced risk of hemorrhage after delivery; rapid return to prepregnancy weight
- Psychosocial benefits: higher self-esteem, reduced risk of depression, associated with enhanced maternal-infant bonding

Economic Benefits

For Families

- Less health care expenses because of healthier children (one study found $331 to $475 additional cost to the managed care system for each never-breastfed infant in the 1st year of life
- Less time lost from work by mother because of less infant illness
- Lower food costs because formula can cost up to $2,000/year

For Society

- If half of the women who participate in the Women, Infant, and Children Supplemental Feeding Program breastfed for 1 month, $30 million annually would be saved in formula costs by the federal government.
- If full breastfeeding were practiced in the United States for the first 12 weeks of an infant's life, $2.16 billion annually would be saved because of less illness and disease nationwide, and $3.02 billion annually would be saved from household expenses because of the reduced costs of formula purchasing, family planning benefits, and decreased health care expenditures nationwide.

Pathway to Successful Breastfeeding: A Systematic Approach

If you ask an expectant mother if she is planning to breastfeed, chances are that eight out of 10 California women will say yes. And most mothers (and their family members) probably have a reasonable expectation that they will meet their breastfeeding goals. If you ask a town mayor how many of his or her constituents are breastfeeding, however, the mayor probably wouldn't have the answer. He or she probably wouldn't know how many employers in the town provide time, space and privacy for breastfeeding families (mother *and* fathers) who return to work, or whether the community hospital encourages or discourages new moms to breastfeed. Yet communities should have the expectation that families will be able to meet their goals for breastfeeding. In attempting to build communitywide strategies to support successful breastfeeding, we have identified a critical set of elements that must be in place along a pathway leading to successful initiation and duration of breastfeeding for mothers, families and communities.

The first step in understanding the complexity of the breastfeeding decision-making process is to step back and examine the important family and community factors that influence the decision to initiate and continue breastfeeding (see Appendix A, page 25). These factors include the role various health providers, community agencies, and support programs play in that process. There are critical periods in the decision-making process to initiate breastfeeding after birth, and to sustain those efforts in the face of multiple barriers. We will address the barriers to breastfeeding in the context of these critical periods. We also suggest that it is important to understand the breastfeeding process at two levels – the individual level and the community level.

At the individual level, the figure in Appendix A depicts the environment of institutions, programs and services that affect California families in which the mother is intending or has begun to breastfeed. All the factors can and should contribute to a positive and supportive social, political and cultural environment within which families can successfully breastfeed their children. How does the woman and her family fit into this environment? For a woman to make the decision to breastfeed, she, her partner, and family may know about the benefits of breastfeeding and have some understanding about what is involved in initiating and sustaining successful breastfeeding. A mother and her family need to have at least this to spark the motivation and desire to plan for breastfeeding as the best approach to feeding her newborn. The would-be mother may also receive a clinical assessment and encouragement from health care providers and the hospital who will care for her and her newborn during pregnancy, birth and as their child grows. Beyond that, a family may have little sense that society, the community where they live, values or approves of what they have chosen to do and is prepared to help them achieve their goal. While the mother may be poised to breastfeed her baby, equally important is whether the community is poised to support her and her family in their decision. But this figure is static. What the figure does not describe is any community activity or dynamic interaction through which the mother can carry through with her intention to breastfeed.

As the figure in Appendix B (page 26) shows, there are several dynamic interactions, key sectors and critical periods a woman, her family and her community must negotiate if the mother is to initiate and continue breastfeeding. The three most critical times are the prenatal period, the birth, and immediately following birth (Kogan M, Kotelchuck M, Alexander G, Johnson W 1994; Howard CR, Howard FM, Weitzman M 1993; Howard CR, Howard FM, Weitzman M, Lawrence R 1994; Gartner L, Black LS, Eaton AP 1997; Howard CR 2000). It is during these times when women who

wish to breastfeed need enormous support and clinical expertise. Even women who have had previous breastfeeding success can find themselves at wit's end when their second or third newborn child is less than an enthusiastic breastfeeder. Without adequate support and clinical assistance from skilled health providers, the ability and opportunity to breastfeed may be lost rather quickly.

Breastfeeding programs, commercial and public lactation support services, including "pump stations" for sale and rental of breast pumps in a few communities, have played a significant role in providing breastfeeding services after mothers leave the hospital. Unfortunately, these kinds of programs and services may be few and far between, and are not regular components of most community perinatal health and family support systems. There are numerous entry points into this pathway, including the workplace, WIC agencies, office obstetrical practices and prenatal clinics, and other community-based family support organizations. For example, the education and development of the knowledge, skills and attitudes toward breastfeeding should take place prior to childbirth, and ideally begin prior to conception. This might begin in high school health education classes. For working women, such education could take place in the workplace, or in childbirth or health promotion programs.

The figure in Appendix B forms the organizing principle for this report and its recommendations and shows how the elements of the community environment can come together in a "critical pathway" for each family and community, leading toward successful breastfeeding. The pathway should feel seamless for families but represent a deliberate community choice.

Accordingly, we present a set of systematic strategies and activities to:

- Fully assess the community environment regarding breastfeeding.
- Add, strengthen or expand existing programs to fill the gaps where they exist.
- Link these services along a pathway to successful breastfeeding.

By establishing a linked pathway utilizing the programs, systems and resources already at play, as well as establishing and connecting some new resources in this pathway, Proposition 10 commissions can support the development of a community-based, integrated and comprehensive breastfeeding system for all families. We begin with a description of the factors that make breastfeeding difficult for women and their families.

Barriers to Successful Breastfeeding

Despite the advantages to breastfeeding, numerous barriers make it difficult for many mothers to start and maintain breastfeeding. Together, these barriers can stymie the efforts of the most enthusiastic mother and contribute to a climate where formula feeding is considered the norm. Several areas have been identified as barriers for the initiation and duration of breastfeeding (Spisak S, Gross SS 1991; Slusser W, Lange L, Thomas S, 1999; Healthy People 2010).

Barriers to Initiation

- **Negative social attitudes toward breastfeeding**. Such attitudes were identified as important in the Surgeon General's report on breastfeeding more than a decade ago (U.S. Department of Health and Human Services 1984). These include modesty and embarrassment, incompatibility with lifestyles, loss of independence, and a general lack of societal support for breastfeeding. These social attitudes have been especially important since direct marketing of formula (breast milk substitutes) to the general public started in the U.S. in 1989 (Spisak S, Gross SS 1991). With 80 percent of California mothers starting to breastfeed, we might expect to see babies breastfeeding where we shop or in parks, libraries, or restaurants. Yet breastfeeding is all but invisible in society today. Many mothers decide how to feed their infants before they are pregnant, so the behavior they witness among other mothers and infants around them is important (Arora S et al. 2000).

- **Insufficient professional support and encouragement for breastfeeding**. Data from the 1996 Commonwealth Survey of Families with Young Children indicate that 73 percent of mothers report they are encouraged to breastfeed in the hospital after their babies are born. These women have higher rates of breastfeeding initiation (74 percent) than women who are not encouraged to breastfeed (43 percent) (Slusser W, Lange L 2001). Health care providers, including physicians, nurses, and other health professionals, receive insufficient pre-service education in lactation. This leads to lack of support and encouragement at all levels in the health care system (Newton E 1992; Essex C, Smale P and Geddis D 1995). This is a key barrier to initiating breastfeeding (Spisak S, Gross SS 1991). The lack of trained health care providers affects mothers and babies in all three critical periods in our pathway model. For example, the expectant mother at a prenatal visit may receive adequate support from her obstetric care provider. At birth, however, she may not be able to count on a hospital staff to be sufficiently skilled in breastfeeding management to assure a successful breastfeeding experience.

- **Maternity hospital policies and procedures that obstruct breastfeeding soon after birth**. Hospitals have long been viewed as barriers rather than facilitators to breastfeeding (Howard CR, Howard FM, Weitzman M 1993; Howard CR, Howard FM, Weitzman M, Lawrence R 1994; Gartner L, Black LS, Eaton AP1997). The barriers to breastfeeding initiation most frequently cited during the birth or maternity stay include hospital policies and procedures that include separation of mother and infant after delivery and feeding glucose water or formula in the nursery, and hospital distribution of free formula (Spisak S, Gross SS 1991). Moreover, with early discharge after delivery, generally no more than 48 hours, a mother cannot have the benefit of breastfeeding support and education from the postpartum staff. A supportive hospital environment is another critical component that could help mothers as they start to breastfeed (Slusser W, Lange L 2001).

Barriers to Duration

- **Lack of education and knowledge about breastfeeding among women, lack of support from traditional support networks (including family and friends), and lack of postpartum support services in the community after mothers leave the hospital**. In the final critical period, these community-level barriers include not only the absence of these factors but the difficulty families may have in finding and making connections with services that may exist in their communities (Spisak S, Gross SS 1991).

- **Lack of support for breastfeeding families in school, in the workplace and in child care settings**. These have been among of the most frequently identified barriers to breastfeeding. Early return to work or school, lack of information about breastfeeding at work, lack of sufficient maternity leave, and lack of flexible schedules and on-site facilities for expression and storage of breast milk are consistently the most frequently cited barriers to breastfeeding duration (Spisak S, Gross SS 1991).

III. Evaluation of Existing Programs

Before we suggest how an integrated system of breastfeeding programs and services could be developed in California, we must consider ways in which existing programs could be improved to play a more effective role in such a system. As with other health and social services, services for breastfeeding families are currently fragmented and categorical, with little organization, planning or collaboration among the few available providers. We have divided the programs and services into three sectors: communications, health care and community resources.

1. Strategic Communications

Media and Public Education

In general, breastfeeding is invisible in the public domains of film and television entertainment as well as advertising. The portrayals of breastfeeding in television or film often depict something comedic or sexual, resulting in a negative rather than a positive image. And in advertising, breastfeeding is often portrayed in ads for formula companies, an inappropriate place at best. In the media age, television sets the culture for many households.

Federal, state and municipal laws have been written to address negative attitudes toward breastfeeding. Lawmakers hoped that legislation would help to change society's viewpoint that breastfeeding is something indecent and should not be done in public. Legislation has been enacted in over 20 states to clarify this right, and in some cases to provide a remedy for mothers asked to stop breastfeeding in public. Under federal law, women now have a legally protected right to breastfeed on any federal property. In California, women have legal protection to breastfeed in public. Introduced by Assemblyman Villaraigosa and passed in 1997, the law gives California women the specific right to breastfeed wherever they are otherwise entitled to be. The statute's main purpose was to heighten public awareness of the need to support breastfeeding. Some states and municipalities have gone even further, with Iowa joining California in exempting breastfeeding

women from jury duty and the City of Philadelphia passing a 1996 ordinance that prohibits segregation of breastfeeding mothers (www.lalecheleague.org; Congresswoman Carolyn B. Maloney; National Conference of State Legislatures 2001).

Has legislation been effective in promoting public education about breastfeeding? When these laws are broken, there has been reporting in the local press. This has occurred as breastfeeding mothers have used legislation to sue parties for preventing them from breastfeeding in public. A recent case reported in Los Angeles County occurred in Glendale, at a local branch of a national bookstore chain. The case resulted in a settlement, a change in policy for the national chain and local press coverage. A case can also be made that the public education through the press has had an effect on swaying the legislative process. In Ohio, a suit by two mothers against a national retail chain in 1997 convinced local legislators to pass a 1999 law to protect public breastfeeding in that state (Bright Futures Lactation Resource Center).

However, to depend on this process to inform the public about breastfeeding requires waiting for a woman and her baby to be victimized, embarrassed or humiliated in public. Apart from the harm done to mothers and babies, this is an indirect and reactive approach. It weakens the message and gives over control of the educational process to happenstance and the whim of the press. For a good counterexample, public education has changed the way we think and act toward smokers. Where smoking in public had been considered a neutral activity, the current public environment, created in part by state tax codes, local ordinances and advertising, is now unfriendly to smokers and protective of non-smokers.

Recommendation for Proposition 10 Commissions

- *Support an analysis of a more proactive approach to utilizing the media and legislation for public education to promote breastfeeding.*

2. Health Care Sector

Medi-Cal and Comprehensive Perinatal Services Program

Almost half of all California births are reimbursed under Medi-Cal, including 68 percent of births to Hispanic women, 57 percent to African-American women and 25 percent of births to white women (California Department of Health Services 1997). The goal of California's enhanced Medi-Cal program, the Comprehensive Perinatal Services Program (CPSP), is to improve the health of low-income pregnant women and give their babies a healthy start in life, including lactation support for mothers who elect to breastfeed. CPSP provides women with prenatal care, nutritional counseling and lactation support from licensed health care professionals, as well as rental or purchase of breast pumps and banked human milk for infants who require it — during pregnancy and up to 60 days postpartum (California Department of Health Services 1998). CPSP certifies over 1,400 health care providers across the state to provide these and other perinatal services. County health departments help local providers in meeting CPSP certification requirements by providing them with technical assistance.

This program has been effective in increasing breastfeeding rates, but not as effective as it has been in improving other perinatal outcomes for mothers and children. For example, there were 521,265 births in California in 1998. Between 1994 and 1998, 81.1 percent of pregnant women started prenatal care in the first trimester, an increase of 5.2 percent; the percentage of women who receive late or no prenatal care was reduced to 17 percent, down by 22.4 percent; and the teen birth rate for girls under 15 years old decreased from 1.6 to 0.9 percent.

California has not done as well with breastfeeding (Florez, C, Taylor D, Chavez, G 2000). California as a whole has increased its exclusive breastfeeding rate at hospital discharge by just 2 percent, to 44 per 100 women, over the same time period. Reflective of the diversity across California, rates for exclusive breastfeeding vary by county. Santa Cruz County, for example, ranked 31 of 58 in the state, dropped 21 percent in exclusive breastfeeding between 1994 and 1998. Declines were also seen in San Bernardino, Los Angeles, and Lassen counties, while exclusive breastfeeding climbed in San Diego and San Francisco counties. In a comparison between prenatal care and breastfeeding, Orange County has not improved its breastfeeding ranking over the 4-year period: it remained number 51, with an exclusive breastfeeding rate of 32 per 100. Yet inadequate prenatal care in the county was reduced by 26.2 percent between 1994 and 1998 (Florez, C, Taylor D, Chavez, G 2000). These figures suggest missed opportunities to encourage and support breastfeeding, especially for low-income women, who are the least likely to start and to continue to breastfeed.

Medi-Cal/CPSP lactation services are currently limited to 60 days postpartum, adequate for perinatal services but not for breastfeeding. With public health goals and professional health care organizations recommending much longer breastfeeding as optimal for mothers and babies, it is difficult to reconcile cessation of lactation support at 2 months without at least a plan or link to continuing support especially for low-income women returning to work or school.

Recommendations for Proposition 10 Commissions

Consider underwriting a review of the CPSP lactation policies and links to other community resources to fill the gap. This review should include a look at Medi-Cal/CPSP policies, including:

- ***An analysis of missed opportunities to support breastfeeding through Medi-Cal/CPSP.***
- ***A statewide profile of CPSP with county variation in provider needs for technical assistance regarding breastfeeding.***
- ***An assessment of how the CPSP program can better meet the needs of its participants.***

Women, Infants and Children Supplemental Nutrition Program (WIC)

Another major program that must be part of an integrated system for breastfeeding promotion is the Women, Infants and Children Supplemental Nutrition program (WIC). WIC has actively supported breastfeeding for the last decade. Almost half of all U.S. children under the age of 5 years participate in this program targeted to geographic areas with high rates of infant mortality, low birthweight and low income (Rush D et al. 1988). In 1990, concerned about large expenditures for infant formula in the WIC program, Congress set aside $8 million for breastfeeding promotion. Subsequently, there has been an increase in breastfeeding in the population traditionally served by WIC, i.e. low-income, African-American and women with less education (Ross Products Division 1998).

California has the largest WIC program in the nation, with a clientele that is 69 percent Hispanic, 15 percent white, 9 percent African-American and 1 percent Asian low-income families (California WIC Association [CWA]). WIC benefits include food, nutrition counseling, breastfeeding promotion and support, substance abuse education, and referrals to local health care and social service programs such as Medicaid, immunizations, and food stamps (CWA). Access to the WIC program is especially important in California, with its large immigrant population, because receiving nutrition assistance through the Food and Nutrition Service does not contribute to making an immigrant a "public charge."

Breastfeeding is high among the California WIC population compared to other states, with WIC in-hospital rates rising from 50.4 percent in 1990 to 68.9 percent in 1998, and 6-month duration rates from 12.4 percent to 30.6 percent (Ross Products Division 1998). But regional differences in the California WIC program are similar to breastfeeding patterns among all California women. WIC agencies in Los Angeles County, the Central Valley and southeastern California have the lowest rates for exclusive breastfeeding, while the coastal, mountain and northern regions have the greatest numbers of breastfeeding families (California Department of Health Services 1996). Overall, just 8 percent of all infants enrolled in WIC are exclusively breastfed, well below the average for the state. Trinity County holds the highest rank, with 44 percent of enrolled infants exclusively breastfed, and Watts Health Foundation in Los Angeles the lowest, with 2 percent (California Department of Health Services 1996).

Differences across WIC programs suggest that more can be done to improve outcomes and that there are gaps in service in at least two areas. The first issue is WIC's referral process to other agencies. In California WIC programs, only 51 percent of clients are enrolled in Medi-Cal which would provide additional prenatal and perinatal support; and fewer, 20 percent, are enrolled in CalWORKs, a program that would include food stamps and subsidized child care (CWA). The second issue falls within WIC itself. Some WIC agencies in Los Angeles County loan breast pumps to mothers if their infants have medical conditions that prevent them from breastfeeding, but not to mothers who are returning to work or school.

Recommendations for Proposition 10 Commissions

- *Develop strategies to link WIC to other family-support programs for low-income women that can support breastfeeding.*
- *Increase the capacity of WIC agencies to support breastfeeding women going to work and school.*
- *Set up and support learning collaboratives focused on utilizing innovative techniques and program elements to improve WIC-based breastfeeding outcomes.*
- *Assess WIC's ratio of skilled lactation management service providers to clients.*

Providers

The primary health care provider has a strong and far-reaching role in promoting, supporting and protecting breastfeeding in California and its communities. Physicians, nurses, midwives, and nutritionists need to be educated in lactation management so that they can support breastfeeding families. However, studies have found that physicians are generally poorly prepared to provide

adequate breastfeeding support and advice, often relying on their own experiences. In one national survey of pediatric physicians and residents, 90 percent of the respondents agreed that they should be involved in promoting breastfeeding, but their clinical knowledge and experience suggested a very low degree of competency (Freed GL et al. 1995). A smaller study of pediatric residents found only 14 percent of the total sample describing themselves as confident or very confident to manage common breastfeeding problems. Obstetricians and family practitioners may also lack the necessary skills to adequately counsel. Midwives and nurses get more education in lactation, but they too deserve greater opportunities to learn about breastfeeding.

In order to provide optimal lactation management education and practice, integration of lactation management into pre-service curriculums is essential. Studies demonstrate the paucity of information on lactation at this stage of education. For instance, Newton found in a 1992 survey that 55 percent of medical schools offered no didactic lectures on lactation or breastfeeding, and 30 percent of obstetric and pediatric residencies provided no didactic lectures to their students. The Univ- year medical students during their pediatric and OB/Gyn clerkship. The University of California, Davis and San Diego, also have similar short courses. Currently, California's Breastfeeding Promotion Committee (BPC) has identified key physicians at each of the medical schools in California in order to assess ongoing activities and establish lactation management education in the medical school curriculums. This is the first step in the implementation of the committee's recommendations for improving professional education. The human resources to implement the recommendations exist at each medical school in California, but the limiting factor for their implementation is financial support.

Currently, most breastfeeding education for health professionals takes place after their formal training; in other words, in continuing education courses or from personal experiences. The weakness in relying on continuing education as the primary form of lactation education is that it does not guarantee that all of the health care providers who serve women and infants have been educated in lactation management. The San Diego County Breastfeeding Coalition has been awarded up to $100,000 by their local Proposition 10 Commission to expand education of health care providers and child care providers regarding breastfeeding and breast milk. This funding will be earmarked for staffing, education and outreach to increase rates of sustained breastfeeding. The coalition will provide in-office lactation management education to health care providers, develop a breastfeeding triage tool,[2] educate child care providers about breastfeeding and the appropriate handling of breast milk, and conduct breastfeeding training conferences for home visiting professionals and public health nurses.

Recommendations for Proposition 10 Commissions

- *Review integration of lactation management into the curriculum at health-related professional schools to ensure that health professionals are technically and culturally competent in delivering breastfeeding services.*
- *Review a program of continuing education in lactation and evaluation for each county in California.*

[2] A risk-assessment tool for clinicians that considers a woman's age, race, income, health behaviors, etc. and determines the likelihood that she will not initiate and sustain breastfeeding.

California Birth Hospitals

Almost all mothers deliver their babies in hospitals. The length of hospital stay after childbirth has decreased markedly over the past two decades, and, because of national and state legislation regulating insurance coverage, women generally are staying only up to 48 hours after an uncomplicated delivery (Udon NU, Betley CL 1998). A supportive hospital environment is important, especially during shortened stays, because women who are encouraged to breastfeed by a doctor or nurse after the birth are four times more likely to initiate breastfeeding than mothers who don't receive encouragement (Slusser W, Lange L 2001). In 1995, the California State Assembly enacted a bill that requires hospitals to provide lactation support to patients by making available a breastfeeding consultant or providing information to mothers on where to receive breastfeeding information (La Leche League International 2001).

Some hospitals apply for the "Baby-Friendly™" designation, an international hospital initiative developed to address barriers in hospital policies to breastfeeding. WHO/UNICEF published 10 steps of maternal and infant hospital care which, when implemented, greatly increase the probability that breastfeeding families will get off to a successful start (see Appendix C) (World Health Organization 1989). To date, just 31 birth centers and hospitals in the U.S. have been evaluated and deemed Baby-Friendly™. Why so few? The process takes a long time to complete and is expensive. In 1999, Boston Medical Center, an inner-city hospital, became the first Massachusetts Baby-Friendly™ hospital after two and a half years of effort. Breastfeeding initiation rates rose there from 58 percent to 87 percent, with 33 percent of mothers breastfeeding exclusively (up from only 6 percent) (Philipp BL 2000). Costs include training the hospital staff and physicians, the evaluation and annual fees based on number of births (Baby-Friendly Hospital Initiative).

Other hospitals have opted to develop independent lactation support programs. One, the lactation center at Cedars-Sinai Medical Center in Los Angeles, reports that in 1998, 81 percent of women came to the hospital expecting to breastfeed but only 69 percent were doing so at discharge. Now, 93 percent of women expect to breastfeed and 91 percent are breastfeeding at discharge (Los Angeles Times 2000). Except for Baby-Friendly™ hospitals, which are evaluated, there are very few data available on whether other "baby-friendly" hospital programs have raised initiation rates.

Currently, there are only six Baby-Friendly™ hospitals in California: Goleta Valley Cottage Hospital in Santa Barbara; Inland Midwife Services, the Birth Center in Redlands; Kaiser Permanente Medical Center in Hayward; San Luis Obispo General Hospital; Weed Army Community Hospital at Fort Irwin; and the Women's Health and Birth Center in Santa Rosa.

An additional six California hospitals have indicated an interest in receiving the Baby-Friendly™ designation and hold letters of intent: California Hospital Medical Center, Los Angeles; Huntington Memorial Hospital, Pasadena; Naval Hospital, 29 Palms; Naval Medical Hospital, San Diego; Ventura County Medical Center, Ventura; and Natividad Medical Center, Salinas. Clearly, these numbers represent only a fraction of the hospitals in California that provide maternity services. To understand just how few women have benefited from Baby-Friendly™ in California, we can look at the numbers of births in two of these hospitals and compare them to births in the county. Goleta Valley Cottage Hospital delivers just 283 of the 5,976 births in Santa Barbara County, and San Luis Obispo

General Hospital accounted for 619 births out of 2,258 in that county (California Office of Statewide Health Planning and Development).

Currently, there is no organized movement within the California hospital system to support breastfeeding. This "hospital system" can be thought to include large hospital associations and owners such as the California Healthcare Association, Catholic Healthcare West, the California Children's Hospital Association and the teaching hospitals across the state.

Recommendations for Proposition 10 Commissions

- *Conduct an analysis of the lactation services required by law in California hospitals providing maternity services.*
- *Support an evidence-based system (such as Baby-Friendly™) to increase the number of hospitals supporting breastfeeding.*
- *Monitor the expansion of Baby-Friendly™ and other lactation support services.*

Insurers

As health care for both Medi-Cal and Healthy Families consumers and privately insured citizens has moved toward managed care, lactation support services for breastfeeding families and their infants should be considered as a quality-of-care measure. Lactation support should be viewed as a constellation of services spanning prenatal, maternity, postpartum and well-child care. Rates for initiation and duration of breastfeeding should be incorporated into quality-of-care indicators for all managed care providers and health care systems, the same way that immunization rates are.

Recommendations for Proposition 10 Commissions

- *Review the addition of lactation services, breastfeeding initiation and duration rates and lactation management practices among providers as quality-of-care performance measures to be included with the current HEDIS[3] set.*
- *Review coverage for a 3- to 4-day postpartum visit schedule.*
- *Create a quality improvement initiative focused on addressing low breastfeeding rates among health plan enrollees by developing appropriate materials, policies and procedures for health care providers and health educators to use.*

3. Community Resources

Child Care Services

In California there are over 9,000 licensed child care centers and approximately 30,880 licensed family child care providers, meeting only 21 percent of the estimated needs for licensed care. More than 50 percent of children under 6 have working parents, and more than half of these children are in care outside the home. Between 1996 and 1998, the increase in slots for infants was 14 percent,

[3] HEDIS (Health Plan Employer Data and Information Set) is a set of performance measures developed by the National Committee for Quality Assurance that is used by health plans to measure how well they perform in key areas, including quality of care, access to care, and member satisfaction.

the highest for any age group, yet only 4 percent of child care center slots are for children 0-24 months (California Child Care Resource and Referral Network).

There are no data on breastfeeding rates in child care settings. Infant feeding in child care, including breastfeeding, is regulated under state licensing standards. In California, these recommendations include only a proviso that parents be permitted to provide formula or breast/mother's milk for their babies while in day care centers. Other states have taken a more proactive stance in supporting breastfeeding in child care settings. For example, Delaware stipulates that "every effort shall be made to accommodate the needs of the child who is being breast-fed." Mississippi's regulations explicitly support breastfeeding: "Breast milk is the recommended feeding for infants and should be encouraged and supported by child care facility and staff" (National Resource Center for Health and Safety in Child Care).

There may be few lactation services connected to child care settings except for employer-based lactation programs with on-site child care services such as the ones at Patagonia, Inc., in Ventura County, the Los Angeles Department of Water and Power, and UC Davis. The deficit in lactation programs is especially important for low-income women where the barriers are compounded by a number of factors. Low-income women, regardless of race or ethnicity, are already at risk not to initiate or continue to breastfeed. Going to work and placing their infants in child care is another barrier to breastfeeding for this population. Low-income mothers may also be disproportionately more likely to work in low-wage jobs where job flexibility, the structure of the workplace or benefits may be less supportive to continuing breastfeeding. And child care consumes more of their family budgets. The average annual cost for an infant in full-time day care is estimated at just over $6,500. With minimum-wage earners spending 55 percent of their incomes on child care, much more than median-income (17 percent) families, these families may have less disposable income to purchase lactation support services elsewhere (California Child Care Resource and Referral Network).

Proposition 10 commissions could support a review of what would be required to provide high-quality child care for these and other families, including lactation support. If Proposition 10 is to promote innovation and change in child care and child development, this is a key area.

Recommendations for Proposition 10 Commissions

- *Conduct a needs assessment of lactation support and services in child care centers in California.*
- *Evaluate strategies and best practices to ensure breastfeeding promotion at child care sites through legislative and administrative changes.*
- *Work with state child care organizations in developing a collaborative action plan to provide incentives for child care providers to support breastfeeding.*
- *Provide technical assistance to child care centers, including development of tool kits for child care providers that could help them improve services and link to community-based supports – including referrals to WIC, Medi-Cal, etc.*
- *Include breastfeeding support in management training of child care providers.*
- *Monitor the inclusion and expansion of breastfeeding support by child care centers.*

Employers

More than half of mothers with a child under 1 year of age are in the workforce. Working mothers start to breastfeed as frequently as mothers who are not employed, but fewer continue. In 1998, while 64.4 percent of all US employed mothers initiated breastfeeding, only 24.4 percent continued to breastfeed at 6 months and 12.5 percent at 1 year, figures lower than for women who are not working for wages (U.S. Department of Health and Human Services 1998; Ross Products Division 1998).

Some states and the federal government are using the legislative process to protect working mothers who breastfeed. For example, Minnesota requires an employer to provide reasonable unpaid break time each day to an employee to express breast milk and to make reasonable efforts to provide a room or other location where this can be done in privacy with sanitary conditions. A Hawaii bill prevents employers from prohibiting employee expression of breast milk during any meal or other break period that is required by law or a collective bargaining agreement. Hawaii has gone farther than other states in requiring its Civil Rights Commission to publish data concerning discrimination involving breastfeeding or expression of breast milk in the workplace. A 1998 California Concurrent Assembly Resolution takes a softer stance. It "encourages the State of California and California employers to support and encourage the practice of breastfeeding, by striving to accommodate the needs of employees, and by ensuring that employees are provided with adequate facilities for breastfeeding and expressing milk for their children." It also asks the governor to "declare by executive order that all State of California employees be provided with adequate facilities for breastfeeding and expressing milk" (La Leche League International 2001).

Several federal bills supporting breastfeeding in the workplace are pending. Introduced by New York Congresswoman Maloney, the first would provide a tax-credit mechanism to encourage employers to set up a safe, private, and sanitary environment for women to express (or pump) breast milk. A second bill would amend the Pregnancy Discrimination Act (PDA) to protect breastfeeding under civil rights law, requiring that women cannot be fired or discriminated against in the workplace for expressing breast milk (or directly breastfeeding) during their own lunch or break time. Additional federal legislation would require the Food and Drug Administration to develop minimum quality standards for breast pumps to ensure that products on the market are safe and effective. A fourth bill would permit tax deductions for lactation equipment and supplies (Congresswoman Carolyn B. Mahoney).

Are workplace programs successful? Employers have met the challenges faced by working and breastfeeding mothers with on-site lactation programs because these programs save companies money in recruitment and retention of employees, employee absenteeism and health care costs. One company estimated its investment in a lactation program to have a return of 2.18 to 1, while another saw a savings of over $40,000 per year in absenteeism costs (Washington Business Group on Health 2000). Two leaders among large California employers in Southern California are the Los Angeles Department of Water and Power and the Aerospace Corporation in El Segundo. They pioneered the establishment of employee lactation support services in 1988. The University of California at Davis has provided a lactation support program for faculty, staff, students and their spouses since 1995. The program provides lactation consultation, classes, lactation rooms across campus, supplies and discussion groups for mothers. A work-site lactation program is now one of the criteria used for rating the 100 Best Companies for Working Mothers issued by Working Mother magazine. Several

corporations have received Workplace Models of Excellence awards from the National Healthy Mothers, Healthy Babies Coalition in 2000 for their lactation programs (Healthy Mothers, Healthy Babies 2000).

Are there gaps in employer services? Lactation programs are offered by only 15 percent of large employers (Society for Human Resource Management 2000). In addition to being few in number, employer programs tend to be insular and may not be linked to child care, birth hospitals or other community providers. Some programs are restricted to female employees, while others include male employees and spouses.

Recommendations for Proposition 10 Commissions

- *Assess the feasibility of expanding the employer-based lactation support services.*
- *Provide incentives, education and technical assistance to employers.*
- *Monitor the development and expansion of workplace lactation support programs.*

Home Visitation

In other countries, home visiting is a routine event for all new parents as well as for high-risk families. Visits are carried out generally by registered nurses, who provide health education, preventive care, and social services to young families (Kammerman SB, Kahn AJ 1995). An English study found, in addition to other factors, a 24 percent increase in breastfeeding among home-visited families, which contributed to a reduction in post-perinatal mortality (Carpenter R et al. 1983).

In this country, home-visiting programs are generally targeted to low-income families, families at risk for substance abuse, or children who may be at risk for limitations in early childhood development. However, all families with newborns should be welcomed to the community via home visitation and receive an assessment for health and social needs that are common to all families. The Alameda County Proposition 10 Commission has funded a Universal Home Visitation Program for all newborns within 48-72 hours after delivery. Almost all parents (95-97 percent) have accepted this program into their homes. Services provided by programs such as this could address health issues such as well-child care, breastfeeding and immunizations, as well as provide links to community services geared to families with young children, including lactation services.

Support for breastfeeding families should not be overlooked in developing and implementing any of these programs. Assessment of breastfeeding status, especially within the first few days a family is home from the hospital, is critical in helping families to maintain breastfeeding.

Recommendations for Proposition 10 Commissions

- *Review training and technical assistance, for professional and lay personnel, in home-visiting techniques to meet the needs of breastfeeding families.*
- *Expand programs such as the Alameda County Home Visitation Program to support increasing rates of breastfeeding initiation.*

Best Practices and Model Programs

We include two examples of best practices here, both of which address two of the barriers to breastfeeding we have cited. We selected the Los Angeles Department of Water and Power (DWP) lactation program because the model used at DWP is comprehensive and links parents and their babies to lactation services before pregnancy, during pregnancy and childbirth, and when returning to work and needing child care. We include the UCLA Lactation Educator Program because it has been instrumental in building provider manpower and capacity through lactation education in California and nationwide. These programs can be used as models for programs and best practices in communities throughout California. The Los Angeles Department of Water and Power received Workplace Models of Excellence awards from the National Healthy Mothers, Healthy Babies Coalition in 2000 for their program (Healthy Mothers, Healthy Babies 2000).

The Workplace

Beginning in 1988, the Los Angeles Department of Water and Power (DWP), a public utility in Los Angeles with 9,000 employees, was one of the first large employers to offer lactation support for its employees and their families, now totaling 3,000 participants. By promoting breastfeeding as a family issue in a predominantly male company, DWP has been successful in using new marketing strategies to educate supervisors as well as male and female employees about breastfeeding. This employer has developed its lactation support program in conjunction with other comprehensive family-friendly benefits. DWP provides its lactation program through its child care services that also includes adoption assistance, expectant parent services, a fathering program and parenting classes.

The Lactation Educator Program at UCLA has taken a national lead role in lactation education. It has been one of the major courses providing continuing education lactation management for nurses, dieticians and laypersons in the past 20 years, primarily in California but also nationwide.

Continuing Education

Three local lactation educators have been involved in the development, implementation and instruction of the highly successful UCLA Extension Lactation Training Programs since their inception in 1982. These programs have been described in the Jelliffes' *Programmes to Promote Breastfeeding* (1988) and in the *Second Follow-up Report: Surgeon General's Workshop on Breastfeeding and Human Lactation* (Spisak S, Gross SS 1991). Adaptations of the Lactation Educator program have been designed for the State Department of Health, Women, Infant and Children (WIC) programs of Texas, Illinois, Utah, California and Wisconsin. In Wisconsin the Lactation Educator Program was written into a SPRANS Grant and continues to be taught annually. In 1999 the program was included as part of a USDA Infrastructure Grant to the state of Michigan. In 1992 the program also won a grant to assess and recommend breastfeeding strategies to the Intertribal Council for the state of Arizona, representing 19 Native American tribes. Over 5,000 individuals have been trained in this program. Graduates of the UCLA lactation educator course have gone on to be principal leaders in their communities in protecting, promoting, and supporting breastfeeding.

IV. Integrating and Coordinating Services and Programs to Create a System

Breastfeeding is one area where a coordinated system is essential. An integrated and coordinated lactation system supports not only the mother and her baby but also reinforces and maintains the work of all the other institutions contributing to a good breastfeeding experience, thereby increasing expectations and efficiency. Breastfeeding families are an acutely sensitive barometer of community health. Because support for successful breastfeeding families generally comes from all quarters of the community, breastfeeding is a unique sentinel indicator of good maternal and child health. If your community has high rates of breastfeeding initiation and duration, the chances are that your whole maternal and child health and development system is fine-tuned and in good working order. And so are your Chambers of Commerce, your schools and your neighborhoods as they work together to promote healthy children and families.

For example, a Baby-Friendly™ hospital may increase the numbers of mothers breastfeeding when they leave the hospital. However, the pediatrician who takes over care of the baby may be limited in providing complete services for this mom if there are scant lactation resources in the community to support a mother, whether it is a WIC agency, private lactation consultants or peer support (Slusser W, Lange L 2001). A supportive child care setting will come too late to help a working mother if she has already given up breastfeeding because of a lack of employer support as she returns to work. And for a mother who is asked to leave a place of business or go to a public restroom to breastfeed, all of the supportive prenatal and maternity care may be jeopardized or lost in that instant.

Strategies that Proposition 10 commissions should consider for coordinating and integrating lactation systems and programs should start with providing leadership. Taking a leadership role in promoting and supporting breastfeeding means setting the agenda for communities to encourage and accept breastfeeding, and then putting the required services in place. From a strategic position, Proposition 10 commissions should ensure participation, coordination and integration of programs that support not only breastfeeding but also the services and programs connected to it. For example, a commission's request for proposals (RFP) for child care services could stipulate integration of not only breastfeeding support on site but also links to health care, hospitals and home-visiting programs, all of which have implications for breastfeeding and child development. Alternatively, communities applying for home visitation grants could be required to link their programs to lactation support for families with pregnant women and newborns.

The process for integrating new activities into existing systems should include bringing together the organizations already familiar with current services and programs for lactation, for example, California's Breastfeeding Promotion Committee (BPC) and the 28 Regional Breastfeeding Task Forces. These include local lactation consultants, WIC personnel, La Leche League leaders, health educators, consumers, clinicians (physicians, nurses, nutritionists), CPSP providers and in general, anyone interested in promoting breastfeeding. And new leaders should be brought to the table. This is where parents, community residents and other stakeholders, including local employers and merchants, could play a role in improving old programs and building new systems.

V. Integrating and Coordinating Funding

As we have shown, breastfeeding is an integral part of any community where families live, work and raise their children. This position places breastfeeding at a pivot point for the investments Proposition 10 commissions will be making to strengthen and enrich the lives of young children and their families. Proposition 10 dollars should be invested in two ways. The first would be to support the assessment of the existing systems we have described (strategic communications, health care sector, and community resources). This would be a *short-term strategy* and should not be thought of as an end in itself. If funds are not maximized and used to strengthen programs or systems, the long-term investment is less attractive and, in the end, will be less sustainable.

The second strategy is *long-term* and would support the development of an infrastructure for the integration and coordination of these services and programs — the integration and coordination suggested by the breastfeeding pathway in Appendix B. Without the long-term investment in an integrated system with dedicated evaluation and continuous quality improvement (CQI), the disparate programs and services contribute much less to the whole picture and the desired outcome: breastfeeding for greater numbers of children, improved health and development, and greater school-readiness.

Recommendations for Proposition 10 Commissions

Short-term

- *Proposition 10 grant awards can be targeted directly, through the RFP process. For example, dollars to be spent on child care should have some funds earmarked for training and capacity building in lactation management and evaluation of breastfeeding in child care.*
- *Proposition 10 can fund or undertake a review of programs and money that is already being spent on breastfeeding such as Medi-Cal, WIC, Child Health and Disabilities Prevention (CHDP), or Healthy Families. This second approach would lay the groundwork for systems integration by identifying dollars from different funding streams applied to the same goal, supporting breastfeeding.*

Long-term

- *Use breastfeeding as a focal integration strategy for coordinating funding across programs and systems. This makes sense because breastfeeding, by its very nature, already makes the connections.*

VI. Getting Started: Building a System and Forging Connections

Strategic Planning: Pathway to Successful Breastfeeding

If all families in California are to have the opportunity to meet their breastfeeding goals for their children, there must be a shared vision across all sectors of the community that can influence the likelihood that infants and young children will be breastfed. Stated simply, an important Proposition 10 goal is to optimize the well-being, health, development, and early learning for all children through increased breastfeeding initiation and duration rates. It is critical that all participants, from the

pediatrician to the Chamber of Commerce, embrace this mission and understand the part they play in its success.

We make the following recommendations based on the steps that are necessary to construct and follow the breastfeeding pathway described in Appendix B. These recommendations are designed for either the state or county commissions, as appropriate, given the scope of the recommendations and the capacity of the commissions. The following sections include a plan for leadership development, partnerships and collaboration, training and technical assistance, funding, and evaluation. Interwoven are steps that implement the strategic plan and lay the foundation for system integration. We suggest as a primary strategy the development and use of "Tool Kits" and "Training Wheels" for technical assistance and training for commissions and their communities.

1. Leadership

The commissions must provide leadership for breastfeeding and for system integration across all the sectors we have described. A comprehensive plan must be developed, unique to each commission, that incorporates the key components of the breastfeeding pathway. This plan must address the educational and informational needs of various sectors, the different kinds of potential interventions and the linkages among them, and the need to improve the quality of linkages, the quality of program offerings, and the financing of breastfeeding support.

Set the stage for breastfeeding! Take the initiative to support breastfeeding through a direct, proactive and unambiguous campaign to support breastfeeding. Acknowledge the importance of breastfeeding through your own public education and advertising promotion to change the public's

perception and behavior regarding breastfeeding women and their children. Take the mystery out of breastfeeding for the public and give breastfeeding your *Seal of Approval*.

Take a "snapshot" of your community. Develop a community breastfeeding inventory. Start with an assessment of community resources that breastfeeding families need, and then look at the barriers to accessing them. Find out who is breastfeeding and for how long, as well as who wanted to breastfeed but could not, and who had to quit before they wanted to.

2. Partnerships and Collaboration

Part of the leadership role will be to foster partnerships and collaboration. Identify a set of strategic partnerships to accomplish the goals and objectives you have set forth and to help refine them along the way.

Be a role model for collaboration! Model the role of "community collaborator" for others. Use the Proposition 10 "bully pulpit" to encourage new collaborative partnerships and community accountability for breastfeeding. Identify leaders in education, media and policy making and other sectors we have listed to help develop strategies and collaborative partnerships.

Be creative. Look at your community with your "snapshot" in mind. When you bring stakeholders to the table, think beyond the usual medical providers and hospitals to the business community,

schools and local press — all those who can increase the breastfeeding initiation rate in your community.

Set the agenda for collaboration. Use the RFP process to require and specify collaborative efforts to promote breastfeeding. Use this process as an opportunity to guide the community to think outside the traditional set of breastfeeding services and programs.

> Example: Require applicants for a new child care service RFP to include representation on their advisory board from the local breastfeeding task force, employers and health care providers. Encourage community "ownership" of breastfeeding right from the start of every new venture.

3. Training and Technical Assistance

Many partners and collaborators will need training or technical assistance. Tools and toolkits can be developed and used to help individuals and organizations — including employers, child care providers, physicians, hospitals and the business community — understand and fulfill their role in facilitating breastfeeding success. (There are several such tools already available that Proposition 10 Commissions should examine and consider using. Nonetheless, there is still a need for the development of new tools to satisfy a variety of unmet training and technical assistance requirements.)

Build the infrastructure. Use the RFP process as an instrument for community breastfeeding development. Underwrite the development of "tool kits" and "training wheels" for improvement of breastfeeding services so that communities can craft their own unique and culturally appropriate techniques to build a safe and friendly breastfeeding environment.

Design the landscape. Use training and technical assistance to connect the components of the community infrastructure and build a system. Build this step into the RFP guidance so that applicants understand they are contributing to the whole picture as well as their part.

> Example: When you develop an RFP for home visitation programs, require applicants to provide services for breastfeeding families. Be prepared to supply lactation management "training wheels" for home visiting personnel and supervisors, as well as prenatal and pediatric providers who provide health care to these clients. In addition, improve the system of communications between these two groups of providers. Depending on the scope of the home visitation programs, additional training and capacity-building tools may be needed throughout the community, from social workers to bus drivers.

4. Funding

A set of finance strategies must be developed to understand how the commissions can leverage and maximize their funds against large public funding streams, including Medi-Cal, Healthy Families, WIC and CHDP. Other sources of funding, from employers or foundations, can also be identified.

Make breastfeeding everyone's business! Because breastfeeding threads its way through so many segments of the community, use it as an integrating strategy to get the financial base in your

community involved in breastfeeding and children. This goes back to leadership and maintaining a vision of the goal before you.

> Example: Celebrate the role of the hospital in breastfeeding! *Convene* a hospital conference on supporting the training of breastfeeding friendly hospitals. Involve the hospital board and their auxiliaries. As high-profile professional, financial, and social contributors to any community, hospitals are uniquely situated to play a large and focal role in community efforts to introduce breastfeeding. Invite hospitals as well as local philanthropies, the business community, providers, insurers, and consumers to address this issue as a community of interested parties.

5. Evaluation

Commitment to monitor, evaluate, map and track your plan throughout is essential. Utilize continuous quality improvement (CQI) techniques and incorporate breastfeeding as a goal in your results-based accountability framework to keep on top and ahead of problems.

Get out your tape measures. When will you know you are approaching your goal? Shape and measure system integration through ongoing data collection on breastfeeding initiation and duration rates, community linkages, and internal quality improvement in programs, agencies and institutions. Take the measure of your work in every RFP or Proposition 10 initiative, find the problem, fix it and go forward.

> Example: Breastfeeding initiation rates are high when mothers leave the hospital but drop sharply after they return home. A community survey determines that the recent increase in low-income breastfeeding mothers has overwhelmed the WIC agencies that ordinarily provide lactation support for these mothers. Community capacity has not kept up with the demand. Be prepared to increase community capacity at WIC agencies but also through training community peer counselors.

VII. Monitoring Progress: Issuing a Breastfeeding Report Card

Keeping track of breastfeeding at the state and county levels is crucial to evaluating what is happening. Therefore, we conclude with the following recommendations for developing a breastfeeding report card. Proposition 10 commissions should:

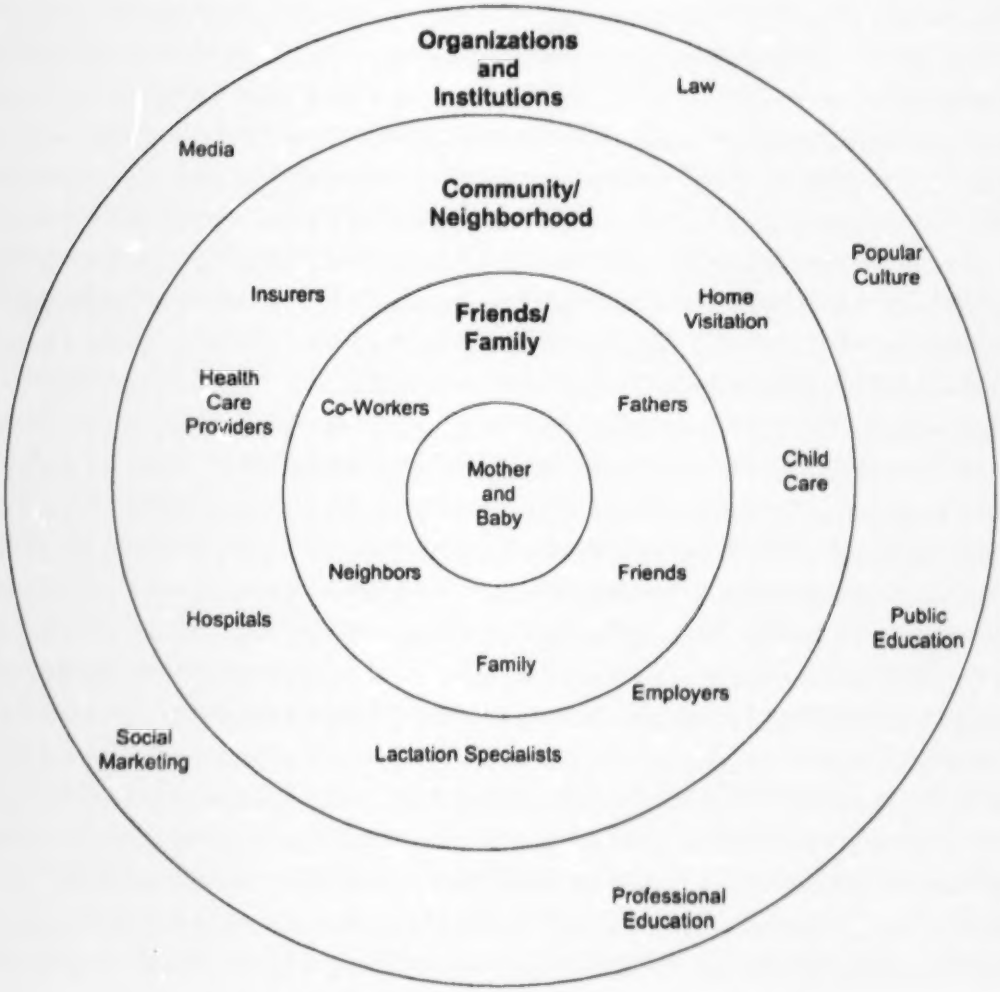
- Establish valid, reliable and integrated surveillance and data collection mechanisms to track breastfeeding initiation and duration at all levels in the state and counties.
- Track and refine system integration through CQI including measures for leadership, collaboration, technical assistance, funding, and evaluation.
- Develop indicators for system capacity measures including, for example, the number of lactation specialists in the community, the number of breastfeeding friendly hospitals, the number of employer lactation programs, and the number of child care settings supporting breastfeeding.

In Summary: Why Breastfeed? Why Proposition 10?

Comprehensive breastfeeding services have been among the most unnoticed and underfunded aspects of child development. As a result, the promotion and support for breastfeeding activities has been fragmented and uncoordinated. To support the development of a statewide systematic approach that supports breastfeeding families in California, we conclude with these reminders:

- Breastfeeding contributes substantially to optimal child health and development.
- A statewide and countywide effort to promote breastfeeding must be adequately funded and coordinated.
- The inclusion of breastfeeding protection, promotion and support in the strategic planning process contributes substantially to the mission of Proposition 10 for California's youngest citizens.

VIII. Appendix A: The Breastfeeding Environment (Individual Perspective)



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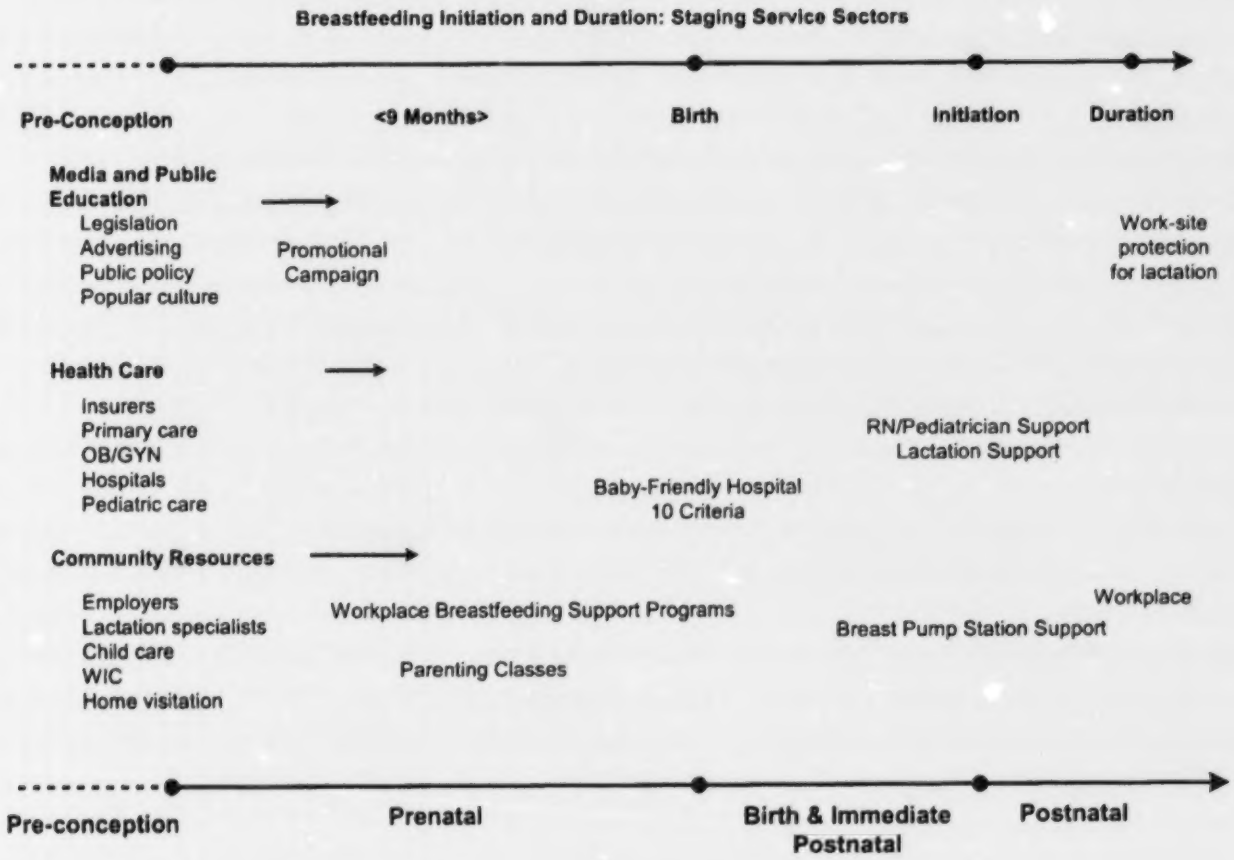
IX. Appendix B: The Breastfeeding Pathway



X. Appendix C: Ten Steps to Successful Breastfeeding

From the World Health Organization, 1989, www.aboutus.com/a100/bfusa

1. Have a written breastfeeding policy that is routinely communicated to all health care staff.
2. Train all health care staff in skills necessary to implement this policy.
3. Inform all pregnant women about the benefits and management of breastfeeding.
4. Help mothers initiate breastfeeding within an hour of birth.
5. Show mothers how to breastfeed and how to maintain lactation, even if they should be separated from their infants.
6. Give newborn infants no food or drink other than breast milk, unless medically indicated.
7. Practice "rooming in" by allowing mothers and infants to remain together 24 hours a day.
8. Encourage breastfeeding on demand.
9. Give no artificial teats, pacifiers, dummies, or soothers to breastfeeding infants.
10. Foster the establishment of breastfeeding support groups, and refer mothers to them on discharge from the hospital or birthing center.

XI. Appendix D: Regional Breastfeeding Coalitions

Alameda County
Alameda County Breastfeeding Task Force
Lyn Diana, RD, MA
Alameda County MCAH
1000 Broadway, Suite 500
Oakland, CA 94607
Phone: (510) 628-7798
Fax: (510) 628-7893

Bay Area & Coastal Counties: Alameda, Contra Costa, Marin, Monterey, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Solano
Bay Area & Coastal Counties WIC Regional Network
Ann Rojas
680 8th Street, Suite 204
San Francisco, CA 94103
Phone: (415) 554-9758 or (415) 206-5062
Fax: (415) 206-6543
Or Anne Garrett
Phone: (650) 573-2955
Fax: (650) 577-9223

Butte County
The Oroville Community Coalition for Breastfeeding
Debbie Pierce, RN, PHN
695 Oleander Avenue
Chico, CA 95926
Phone: (916) 891-2869
Fax: (916) 891-8743

Central California
Central Valley Breastfeeding Coalition
Joann Skoufis, RNC, CLE, BSN
2037 W. Bullard Ave. #250
Phone: (209) 439-4425
Fax: (209) 439-3905
Email: cvalleybc@aol.com

Contra Costa County
Contra Costa Breastfeeding Task Force
Nancy Hill, MS, RD, CLE
597 Center Ave., Suite 365
Martinez, CA 94553
Phone: (510) 313-6260
Fax: (510) 313-6708

Fresno, Kern, Kings, Madera, Mariposa, Merced, San Benito, and Tulare Counties
Central California WIC Breastfeeding Coalition
Julie Casillas
1920 Mariposa Mall, Suite 120
Fresno, CA 93727
Phone: (209) 263-1380
Fax: (209) 263-1152

Humboldt County
Breastfeeding Task Force of Humboldt County
Star Siegfried, RN, IBCLC
Jacque McShane, RN, IBCLC
Ninon McCullough, RN
712 4th Street
Eureka, CA 95501
Phone: (707) 445-6210
Fax: (707) 441-5686

Inyo, Mono Counties
BIBS: Breastfeeding Is Best Support (group)
Carolyn Balliet
Mono County Health Dept.
P.O. Box 3329
Mammoth Lakes, CA 93546
Phone: (760) 924-5410
Fax: (760) 924-5467

Kern County
Kern County Breastfeeding Promotion Coalition
Linda Erb, Perinatal Services Coordinator
Kern County Dept. of Public Health
1700 Flower Street
Bakersfield, CA 93305
Phone: (805) 868-0523
Fax: (805) 868-0225

Los Angeles County
The Breastfeeding Task Force of Greater Los Angeles
Kiran Saluja, MPH, RD
12781 Schabarum Avenue
Irwindale, CA 91706
Phone: (818) 856-6650
Fax: (818) 813-9390

Los Angeles County
Inglewood Breastfeeding Coalition
Karen Meehan, MPH, RD
Public Health Foundation
Enterprises WIC Program
12781 Schabarum Avenue
Irwindale, CA 91706
Phone: (818) 856-6650
Fax: (818) 337-7212

Northern California Counties: Amador, Butte, Calaveras, Colusa, Del Norte, El Dorado, Nevada, Placer, Sacramento, San Joaquin, Sierra, Tuolumne, and Yolo Counties
Northern California Breastfeeding Coalition
Janet Hill, RD, CLE
Sacramento County WIC Program
2251 Florin Road, Suite 100
Sacramento, CA 95822
Phone: (916) 427-7434 or (916) 424-1150
Fax: (916) 395-7314

Orange County
Orange County Breastfeeding Coalition
Laurence Obaid, MS, RD, CLE
Orange County HCA, WIC Program
1725 W. 17th Street
Santa Ana, CA 92706
Phone: (714) 834-7986
Fax: (714) 834-8028

San Bernardino County
San Bernardino County Breastfeeding Task Force
Bruce Smith, MD, MPH
799 Rialto Avenue
San Bernardino, CA 92415
Phone: (909) 383-3057
Fax: (909) 386-8181

San Francisco County
San Francisco Breastfeeding Promotion Coalition
Ann Rojas, MPH, RD
San Francisco Dept. of Public Health
WIC Program
680 8th Street, Suite 205
San Francisco, CA 94103
Phone: (415) 554-9728
Fax: (415) 554-9637

San Diego County
San Diego County Breastfeeding Coalition
Mary Sammer, MS, RD
Phone: (760) 752-4324
Fax: (760) 752-4322
Nancy Wight, MD, IBCLC
c/o Children's Hospital and Health Center
3020 Children's Way
MC5058
San Diego, CA 92123-4282
Phone: (619) 576-5981
Fax (619) 541-4972

San Joaquin County
Breastfeeding Coalition of San Joaquin County, A subcommittee of the Healthier Community Coalition
Kay Ruhstaller, RD
Delta Health Care WIC
Stockton, CA 95201-0550
Phone: (209) 472-7093
Fax: (209) 472-9802

San Luis Obispo County
Olga Mireles, RN
SLO General Hospital
2180 Johnson Avenue
San Luis Obispo, CA 93401
Phone: (805) 781-4905
Fax: (805) 781-1096

San Mateo County
Breastfeeding Advisory Committee for San Mateo County WIC
Anne Garrett
San Mateo WIC
32 W. 25th Avenue #203A
San Mateo, CA 94403
Phone: (650) 573-2955
Fax: (650) 577-9223

Santa Clara County
Santa Clara Valley Breastfeeding Task Force
Kathy Wahl, MA, RD, CLE
MCAH Program
976 Lenzen Avenue
San Jose, CA 95126
Phone: (408) 299-5850
Fax: (408) 287-9793

Santa Cruz County
Breastfeeding Coalition
Roberta Barnett, RN, MS
Perinatal Services Coordinator
Health Services Agency
Women's Programs
1400 Emeline Avenue
Santa Cruz, CA 95060
Phone: (408) 454-4772
Fax: (408) 454-4982

Siskiyou County
Siskiyou Breastfeeding Task Force
Patty Leal, RN, PHN, CLE
Siskiyou County Strategies in Parenting Home Visiting Program
806 S. Main
Yreka, CA 96097
Phone: (530) 841-4061
Fax: (530) 841-4076

Solano County
Solano County Breastfeeding Task Force
Denise Blunt, MS, RD
Phone: (707) 435-2211
Teri Ewell
Phone: (707) 435-2212
Solano County Health and Social Services
Nutrition Services – WIC Program
2101 Courage Dr.
Fairfield, CA 94533
Fax: (707) 435-2217

Sonoma County
Northern California Breastfeeding Coalition
Carol Allwine
Sonoma WIC Program
1030 Center Drive, Suite B
Santa Rosa, CA 95403
Phone: (707) 525-6590
Fax: (707) 525-6524

Southern California
WIC Consortium of Southern California
Kiran Saluja, MPH, RD
12781 Schabarum Ave.
Irwindale, CA 91706
Phone: (818) 856- 6650
Fax: (818) 813-9390

Tehama County
Breastfeeding Council of Tehama County
Sue Mitchell, RD
St. Elizabeth Community Hospital WIC Program
2550 Sister Mary Columba Dr.
Red Bluff, CA 96080
Phone: (916) 527-8791
Fax: (916) 527-6150

Ventura County
Ventura County Breastfeeding Coalition
Margie Wilcox Rose, RD, MPH
3147 Loma Vista Road
Ventura, CA 93003
Phone: (805) 652-3214
Fax: (805) 652-5921

Yuba/Sutter County
Yuba/Sutter Breastfeeding Task Force
Kathy Ang, RD
Del Norte Clinics WIC Program
2 Ninth Street
Marysville, CA 95901
Phone: (916) 742-4993
Fax: (916) 742-2599

XII. Appendix E: Breastfeeding Information Resources

American Academy of Pediatrics (AAP)
Sherry Lyons, MA
Director, Division of Comm. Health Svs.
141 Northwest Point Blvd.
P.O. Box 927
Elk Grove Village, IL 60009-0927
Phone: (847) 981-4729
Information and materials regarding AAP positions and activities related to breastfeeding, and its employee lactation program. Quarterly newsletter is available.

ASPO/Lamaze Administration Office
Megen Brey
1200 19th Street, NW, Suite 300
Washington, DC 20036
Phone: (800) 368-4404 or (202) 857-1128
Fax: (202) 223-4579
Offers comprehensive 2-day workshops for maternity care professionals, including Breastfeeding Support Specialist. Call for information about hosting a program.

Baby-Friendly USA
Implementing the US Baby Friendly Hospital Initiative
8 Jan Sebastian Way #13
Sandwich, MA 02563
Phone: (508) 888-8044
Helping your hospital or birthing center to be baby-friendly.

California Women, Infants, and Children (WIC) Supplemental Nutrition Branch
Jan Porter MPH, RD or
Laurie Pennings, MS, RD
3901 Lennane Drive
Sacramento, CA 95834
Phone: (916) 928-8522 or (916) 928-8526
Fax: (916) 928-0610
Monitors local WIC agency breastfeeding rates, provides technical assistance on breastfeeding promotion activities, and attends regional breastfeeding coalition meetings.

Children's Medical Services
California Department of Health Services
Attn: Nutrition Consultant
1800 Third Street, Room 191
P.O. Box 942732
Sacramento, CA 94234-7320
Contact: Local CHDP Program
Health Assessment Guidelines for CHDP providers that includes breastfeeding anticipatory guidance and nutritional assessment components of health exams for children.

Drug Information Center
UCSD Medical Center
200 W. Arbor Drive
San Diego, CA 92103-8925
Toll Phone: (900) 288-8273
Provides information regarding the compatibility of drugs with lactation for health professionals and the public. Pay-per-minute.

Healthy Mothers Healthy Babies Coalition
Brenda Lisi, MS, MPA, RD
Breastfeeding Promotion Committee
409 12th Street, SW
Washington, DC 20024-2188
Information and materials regarding breastfeeding promotion.

La Leche League International
Center for Breastfeeding Information
1400 N. Meacham Road
P.O. Box 4079
Schaumberg, IL 60168-4079
Phone: (708) 519-7730 (9am – 3pm CST)
Fax: (708) 519-0035
Database of 9,200 articles in 200 subject categories from 900 professional journals. Can provide bibliographic lists, conduct searches and provide copies of articles for a fee. Trained staff can interpret data and refer callers to other sources of information. Catalog of a variety of educational materials, including books, videos, tapes, pamphlets, information packets, equipment, and devices, and gifts.

LACTNEWS On-Line
http://moontower.com/bwc/lactnews.html
Lists conference information and serves as a clearinghouse for breastfeeding information with addresses, phone numbers, and hyperlinks to organizations or individuals.

Maternal and Child Health Branch
Department of Health Services
714 P Street, Room 760
Sacramento, CA 95814
Suzanne Haydu, MPH, RD
Phone: (916) 654-5228
Fax: (916) 657-3069
Comprehensive Perinatal Services Program and Diabetes and Pregnancy program breastfeeding protocols. Provides technical assistance to Maternal and Child Health Programs in California. Maintains list of local breastfeeding coalitions.

Mothers' Milk Bank at Valley Medical Center
Maria Teresa Asquith, Director or
Pauline Sakamoto, RN, MS
751 S. Bascom Avenue
San Jose, CA 95128
Phone: (408) 998-4550
Is the only human milk bank in California and recognized nationwide for its leadership and innovation in milk collection, processing, storage, and distribution. Was established in 1974 to serve the needs of ill and premature infants whose mothers are unable to supply their own milk due because of illness or medication, and is an educational resource about the benefits of human breast milk. Human milk by physician prescription is a covered Medi-Cal benefit.

National Center for Education in Maternal and Child Health (NCEMCH)
2000 15th Street, North, Suite 701
Arlington, VA 22201-2617
Katrina Holt
Phone: (703) 524-7802
Information specialists and librarians provide assistance on breastfeeding-related topics.

United Nations Children's Fund
Radio, Television, and Film Service
Division of Information
UNICEF House
3 UN Plaza, H-9F
New York, NY 10017
Phone: (212) 326-7745
Fax: (212) 326-7731
Videos for staff education such as: Breastfeeding Rediscovered (English, Fr., Span), Feeding Low Birthweight Babies (Eng, Fr, Span), Mother Kangaroo – A Light of Hope (Eng, Span). Call for information and pricing.

Wellstart International
Corporate Headquarters and Lactation Management Education Program
4062 First Avenue
San Diego, CA 92103-2045
Phone: (619) 295-5192
Fax: (619) 294-7787
Assorted professional and patient education materials, policy statements, and project reports all related to lactation management.

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Bright Futures Lactation Resource Center, http://bflrc.com

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California Child Care Resource and Referral Network (Network), www.rrnetwork.org

California WIC Association (CWA), http://www.calwic.org/

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Congresswoman Carolyn B. Maloney, 14th District, New York. http://www.house.gov/maloney/

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